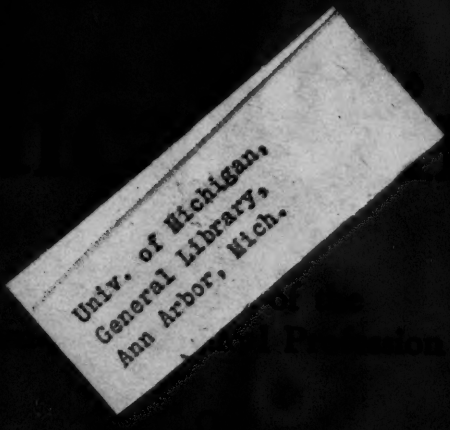

A New Vasoconstrictor-Penicillin
The Treatment of Thrombophlebitis
Therapy in Sudden Arterial Occlusion
Cesarean Sections at Nassau Hospital
Aspergillus fumagatus Infection
Lymphosarcoma of the Stomach
Search and Research

Medical Book News Editorials
Contemporary Progress

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FOR *ORAL* PENICILLIN THERAPY

Per-Os-Cillin tablets—a notable contribution to modern penicillin therapy—contain penicillin calcium combined with special long-acting buffers which effectively protect penicillin from the destructive action of gastric acid. The tablets are stable, promptly absorbed and conveniently taken. Per-Os-Cillin is recommended for the treatment of gonorrhea and for maintenance therapy in pneumococcic, streptococcic and staphylococcic infections. *Per-Os-Cillin tablets, 25,000 units each, are available in tubes of 12.

* For approved uses of oral penicillin see C. S. Keefer, et al., J.A.M.A., 128:1161, 1945

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EDITORIALS

A Celebrated Horror Taken Apart

MUCH has been made by the proponents of compulsory sickness insurance of the figures of Selective Service rejections. We liked the way Dr. Lowell S. Goin of Los Angeles broke these figures down at the hearing on the Wagner-Murray-Dingell bill at the April 16th session of the Committee. Part of what Dr. Goin said follows:

So much has been made of the Selective Service rejection figures, the 5,000,000 4-F's, that they deserve a moment of special attention. Senator Pepper's interim report analyzes the 4,217,000 rejectees and breaks them down into groups. 444,800 were rejected as "manifestly disqualified." These include the armless and the legless, the totally blind, the totally deaf, the deaf mutes, and so on. What medical care could have made this group whole? How shall the amputated leg be restored, and who knows how to cure optic disease? The modern concept is that mental disease is largely a constitutional inborn inability to cope with reality. What has medical care to do with it? 582,100 were rejected for mental deficiency. That is to say, they simply lacked the intelligence to become soldiers or sailors or, indeed, useful citizens of any sort. They are the idiots, the imbeciles and the low grade morons. Even a very slight knowledge of eugenics will persuade any one that this group does not constitute a medical care problem. Together, these three groups reach a total of 1,727,600, or more than one third of the rejectees. If they are now excluded, there remain 2,426,500, a little less than one half the famous 5,000,000. 320,000 of these were rejected for musculoskeletal defects. That is, the congenitally short leg, the club foot, the withered arm, the congenitally dislocated hip, the absence of a half vertebra and the consequent crooked back. How, I ask, would medical care have restored these unfortunates to usefulness? 280,000 were rejected for syphilis. Treatment for syphilis is offered freely everywhere. As a matter of fact our statute books are simply loaded about syphilis prevention. I doubt that there is a community in which a syphilitic person may not receive treatment from a department of public health. One wonders how compulsory health insurance would have eliminated this group. 220,000 were rejected for hernia, probably for hernias so severe that the Army was unwilling to attempt repair. I mean by that that likely these were bad hernias because I did think the army repaired some. Hernia is the result of a congenital defect in the inguinal or femoral canal, presumably due to a defect in the germ plasm. If such a defect exists, its bearer is likely to have a hernia, and medical care has nothing whatever to do with the occurrence of hernia. 160,000 were rejected for "eyes," by which I suppose is meant defective vision. Now it is true that some forms of blindness (ophthalmia neonatorum, for example) may be prevented by adequate medical care, and I think every state has a law requiring the instillation of silver into the eyes of the newborn, and it is my belief that ophthalmia neonatorum is practically an extinct disease, but I think it fair to assume that this group of 160,000 did not include the blind but those with visual errors too great to permit good or even fair vision. If one is born with an eyeball too long or too short or one that is not symmetrical, then one will either wear glasses or not see very well, and medical care again has nothing at all to do with it. These groups total about 1,000,000, and the rejections which might be due to a lack of medical care are thus reduced to about 1,500,000, or about one third of the shocking figure of 5,000,000. Although it is quite problematic whether any program of medical care would have altered substantially this figure, we may rest on it, confident that the figures fall a good bit short of establishing an urgent need for the enactment of compulsory health insurance.

Medicine in a Slave State

It has been estimated by insurance experts that the servicing of the one hundred and ten million people who would be covered by the Wagner-Murray-Dingell proposals would require one employee for every one hundred persons insured. This is exclusive of the medical service. It would add up, believe it or not, to over a million bureaucratic attachés.

Mr. John Hayes, in testifying before the Senate Committee hearings on the compulsory sickness insurance bill (S. 1606), made the following pertinent and cogent remarks on the matter of the medical service under the plan:

We are fearful of this legislation, too, because it makes promises which are impossible of fulfillment. For example, there are now in this country approximately 130,000 active physicians. These men, as you know, seldom work regular hours. However, it is reasonable to assume that under a federally controlled administration these physicians, like other government employees, would fall back into a five-day, forty-hour week. Allowing for the usual two weeks vacation, we find that fifty weeks of such service would make 2,000 hours of medical service available from each physician in a year, and a total of 260,000,000 hours per year from the whole profession. Since we have a population of over 140,000,000 people, this is less than two hours of medical service per year for each individual. In other words, there are not enough physicians in the country right now to provide even two complete physical examinations per year for each citizen. The normal output of our medical schools is approximately 5,000 physicians annually which is barely enough for replacement needs. If the output were increased to 10,000 per year, it would require 26 years to double our physician census. In the meantime should this bill suddenly become a law, the overwhelming load thrown upon our medical profession would result in the lowest standards of medical care this country has ever known.

Indispensable Antibodies

It is when confronted by obstructionists and worse that medicine always develops formidable antibodies. In so far as

the propaganda for nationalized medicine has chanllenged the best professional minds it has served a useful purpose as an antigen. Without such toxins progress would tend to lag now and then over periods of time. But fortunately there seldom are periods devoid of intellectual eunuchs seeking to head the social family who in the interest of health and progress must be liquidated, in the course of which process medical advance gets a fillip.

It has always been so and it will always be so; for which we give thanks. The violent and scornful reaction of Vesalius in his *Fabrica* against Galenic superstitions gave us modern anatomy. One of the great battles recorded in the history of medicine was the one that finally resulted in the overthrow of the comet theory of disease. Until not so long ago yellow fever, especially, was held to be due to the influence of comets.

May we hope for a worse challenge than attempted nationalization of medicine? Never fear, there will be something worse. So much the better!

Our gratitude is due to the representatives of organized medicine who so ably argued our cause at the Washington hearings on the Wagner-Murray-Dingell bill —and our admiration; they exemplify what we mean by antibodies.

Search and Research

We bespeak support for Dr. Marshall's research invitation in this issue.

The New York Academy of Medicine has just signalized its encouragement of individuals engaged in research by providing a forum for them. The number responding is quite impressive.

This is the trend and temper of the times.

Walter B. Cannon, in his *The Way of an Investigator,* has this to say about the matter:

One of the most striking characteristics of an expert investigator is his strong individualism. He has his own personal curiosities, his own plans for work and his own ways and methods for carrying out his plans. It is difficult for him to engage with other experts as a member of a team. New ideas for research come to mind in the course of his investigation that enticingly lead him away to fresh fields for discovery. He wishes to follow the prospects he foresees, unchecked by obligation to associates. He acts thus not because he fails to respect or appreciate highly what others are doing but because he is satisfying an eager personal interest.

✚

Medical Appointments
Western Reserve University

IN a move to make the School of Medicine, Western Reserve University and University Hospitals an important center for the study and promotion of disease prevention, five outstanding U. S. Army medical scientists have joined the university and hospital staffs.

One of the scientists, Dr. John H. Dingle, will occupy the Elisabeth Severance Prentiss chair as professor of preventive medicine to succeed Dr. James A. Doull, who has joined the staff of the United States Public Health Service. Dr. Dingle was director of the commission on acute respiratory diseases in the U. S. Army Epidemiological board.

This was announced in May by President Winfred G. Leutner of Western Reserve, and Dr. Robert H. Bishop, Jr., director of University Hospitals. The other appointees to the medical school and hospital staffs are Drs. George F. Badger, A. E. Feller, C. H. Rammelkamp and R. G. Hodges. They all worked with Dr. Dingle as members of the commission.

Dr. Badger has been named associate professor of biostatistics, while the others will hold appointments in the departments of medicine and pediatrics in the School of Medicine and will also be members of the staff of University Hospitals.

Studies such as those carried out by the respiratory disease commission have demonstrated quite clearly that preventive medicine is on the eve of a great advance.

THE USE OF A NEW VASOCONSTRICTOR-PENICILLIN COMBINATION IN THE TREATMENT OF UPPER RESPIRATORY INFECTIONS

Louis D. Sulman, M.D.

Philadelphia, Pa.

THE advent of penicillin has afforded a new mode of attack against the problems which confront the otorhinolaryngologist. Because of the effectiveness of this drug against many of the pathogenic organisms which invade the nose and throat (1, 2, 3, 4, 5) it offers quite evident possibilities of usefulness in this field. Penicillin is one of the most extensively investigated drugs of modern times. Its chemistry and pharmacology have been exhaustively explored, and sufficient information is now available to insure its safety for clinical use.

Penicillin in the Nose and Throat

THE evaluation of penicillin employed locally in the nose and throat is a problem which has been discussed in the literature from time to time. Vermilye pointed out (6) that because of the difficulties and inconveniences inherent in the usual methods of parenteral administration of the drug, penicillin applied topically is a logical substitute for the injection method. The advantages offered by topical application are ease and adaptability of administration, relative cheapness, and a great degree of effectiveness due to the introduction of high concentrations of the drug at the site of bacterial invasion. Vermilye demonstrated its effectiveness topically by administering penicillin in the form of an aerosol to 200 patients with a wide variety of upper respiratory infections. This application of the drug directly to the site of the disease gave very satisfactory results.

Hauser and Work (7) reported eleven cases of subacute or early chronic sinusitis which were treated by repeated irrigation of the maxillary antrums with solutions of penicillin in strengths varying from 250 to 1000 units per cc. The results were characterized by the authors as being "almost uniformly good".

Fisher (8) also reports using penicillin successfully either by irrigation or drops, in a number of cases of upper respiratory infections, and points out that one of the advantages of penicillin for this method of treatment is that it is not inhibited by exudates. Low concentrations of the drug were used in these cases (*c.* 100 units per cc.).

It has also been determined by Proetz (9) that solutions of penicillin in the concentrations recommended for topical application have virtually no damaging effect on the cilia or epithelium of the respiratory mucosa.

Woodward and Holt (10) studied the effect of local applications of penicillin on 339 patients with nose and throat infections. Solutions of the drug with a strength of 500 units per cc. were administered as a spray and by drops. This strength was determined by the authors to be the most desirable, as stronger solutions tended to be irritating and weaker ones were apt to become too dilute after mixing with retained body secretions. From the results obtained in these cases the authors concluded that the local administration of the penicillin was distinctly helpful in the control of acute and subacute infections of the nose, sinuses, nasopharynx, pharynx and mouth, and of occasional benefit in certain cases of chronic otitis media.

Use of a Vasoconstrictor Agent

THE successful local use of any bacteriostatic agent in the nose is, of course, contingent upon the drug reaching the site of the infection. This necessitates the use of a good vasoconstrictor for shrinking the swollen mucous membranes and opening up the nasal passages. Over a period of years the author has found Paredrine hydrobromide to be the drug of choice for this purpose. It has been pointed out in the literature, both by the

author and by other investigators (11, 12, 13), that Paredrine is less irritating than ephedrine and gives a shrinkage which is approximately twice as rapid and twice as lasting as the latter drug.

Paredrine Plus Penicillin

IN view of the foregoing facts, it seemed evident that the combination of Paredrine with an antibiotic would be a desirable form of therapy. For these reasons, when Par-Pen* became available it appeared to be desirable to test its effectiveness in a representative number of upper respiratory infections. Sixty-one cases were treated in this series, which includes instances of rhinitis, nasopharyngitis, and sinusitis. Both acute and chronic infections are represented. The work was done at St. Joseph's Hospital, Philadelphia, in the author's service, with the assistance of Dr. Samuel M. Zion, and in the private practices of these men.

As a form of control for this study there has been utilized the knowledge of these patients gained from treating them for similar camplaints on previous occasions. In every case where it was possible an attempt was made to compare the results obtained from the use of Par-Pen with the results obtained on previous occasions with other medication.

In the following cases administration of Par-Pen was most often by nasal tamponage plus the subsequent use of drops. During the office visit a saturated tampon was placed in the nose and allowed to remain in each nostril for 5 minutes. Where drops were used the dose was 3 drops in each nostril 3 or 4 times daily. In those cases where the displacement technique was employed a ¼ strength solution of Par-Pen was used.

Discussion

FROM these clinical reports it is evident that Par-Pen has a distinctly beneficial effect on many upper respiratory disorders. One interesting observation which resulted from an analysis of these cases is the fact that the decongestion observed after the administration of Par-Pen is greater than that obtained after the use of Paredrine hydrobromide alone. A sort of synergistic action was evident in many of the cases treated. In the cases of acute nasopharyngitis, for instance, patients seemed to get more immediate and decisive relief than could reasonably have been expected under other methods of treatment. The author, having used penicillin alone, and having had a rather extensive experience with Paredrine, was consequently very much interested to observe an enhanced action when the two drugs were combined. This may appear to suggest that penicillin has a vasoconstrictive effect, but the explanation probably lies elsewhere. The apparent synergistic effect of these two drugs can possibly be explained in terms of the rapid bacteriostatic effect of the penicillin, the resultant lessened irritation, and the consequently greater chance for the Paredrine to function. This increased action of the Paredrine, with the further opening up of the clogged passages, in turn allows the penicillin more ready access to the inner sites of infection.

Penicillin is, of course, known to be ineffective against the viruses, but this does not prevent it being of great help in upper respiratory infections. There is no such thing, after the first few hours, as a pure virus infection. Early cultures always show some bacteria. Almost immediately there is an invasion of various bacteria into the upper respiratory passages. The duration of the infection depends upon the destruction of these bacteria. If the virus infection can be kept free from bacteria the patient will usually make a rapid recovery.

Penicillin has the advantage of being non-toxic and it may therefore be used with safety over prolonged periods of time. This, of course, is not true of the sulfonamides. In our chronic cases treated with Par-Pen such as numbers 20, 51, 52, 55, and 61, there were no significant untoward reactions despite continuous use of the medication.

* Par-Pen contains Paredrine hydrobromide 1% and 800 Oxford Units of penicillin per cc. when the solution is prepared. It will contain at least 500 Oxford Units of penicillin per cc. for a period of seven days, even when kept at room temperature. It is a product of Smith, Kline & French Laboratories.

No.	Patient	Symptoms	Diagnosis	Dosage*	Days of Treatment	Results	Side Reactions	Remarks
1.	V.F.	Acute sore throat; impaired breathing.	Ac. nasopharyngitis.	Nasal tamponage plus ▲	2	Excellent	None	Complete relief from all symptoms in two days.
2.	E.S.	Stuffiness of nose of 3 wks'. duration; postnasal drip, congested m.m. of nose and throat.	Chr. nasopharyngitis.	▲	7	Good	None	Complete decongestion of membranes. Shortened duration of head colds.
3.	J.E.	Impaired breathing. Postnasal drip, swollen turbinates, congested m.m.	Chr. nasopharyngitis and sinusitis.	Nasal tamponage plus ▲	4	Good	None	Improved breathing. Decongestion of m.m. lasting longer than other preparations previously used.
4.	S.M.Z.	Difficulty in breathing through nose.	Chr. allergic rhinitis, with polyps in nose.	Nasal tamponage	—	Good	None	Topical application keeps breathing space clear for 6 hrs. Synergistic action.
5.	E.G.	Chronic nasal stuffiness. Swollen turbinates and congested m.m. Sore throat.	Chr. ethmoiditis, with beginning acute head cold.	Nasal tamponage plus ▲	3	Good	None	One topical application plus the use of drops kept nose clear and relieved all symptoms in 3 days. Using other preparations colds had usually lasted much longer with this patient.
6.	A.K.	Head cold; swollen nasal membranes.	Ac. rhinitis	Nasal tamponage plus ▲	4	Good	None	Decongestion of nasal m.m. lasting 3 hrs. before it became necessary to use Par-Pen in drops. Patient made comfortable for duration of cold, which cleared up in 4 days.
7.	B.T.	Swollen, congested nose and throat.	Ac. nasopharyngitis.	Nasal tamponage plus ▲	4	Very good	None	Complete decongestion in five minutes after topical application lasting 4 hrs. Drops then kept passages clear. Early relief of sore throat. All symptoms gone in 4 days.
8.	D.C.	Stuffy nose, postnasal drip, congested m.m. of nose and throat.	Ac. nasopharyngitis, chr. ethmoiditis, deflected septum.	Nasal tamponage plus ▲	5	Excellent	None	Relief from acute symptoms in 2 days. Lessened postnasal drip, and decongestion better than with Paredrine alone.
9.	Mrs.B.	Chr. sinusitis, with acute flare-up.	Chr. sinusitis.	Nasal tamponage plus △	7	Good	None	Immediate relief from blocked nose. Decongestion effect better than with Paredrine alone.
10.	J.H.F.	Sore throat, nasal congestion.	Ac. rhinitis, nasopharyngitis.	Nasal tamponage plus ▼	1	Excellent	None	Sore throat and nasal congestion cleared almost at once, and in 4 days had not recurred.

* △ = 3 drops 3 times daily
▲ = 3 drops 4 times daily

11.	M.E.	Sinusitis, postnasal drip, stuffy nose, headaches.	Chr. sinusitis,ethmoiditis.	Nasal tamponage plus ▼	7	Good	None	Par-Pen keeps nose clearer for longer periods of time than various decongestants previously used.
12.	R.B.Z.	Congested nose and throat.	Ac. nasopharyngitis.	Nasal tamponage plus ▲	4	Good	None	More comfort and longer lasting decongestion than with use of Paredrine Sulfathiazole Suspension.
13.	E.F.	Chronic difficulty in breathing, with congestion in nose.	Ac. rhinitis, deflected septum.	Nasal tamponage plus ▲	3	Fair	None	Satisfactory decongestion.
14.	I.J.	Difficulty in breathing. Swollen turbinates.	Chr. sinusitis, deflected septum.	Nasal tamponage plus ▲	7	Good	None	Patient usually unable to sleep at night without 3 pillows because of obstructed nares. After using Par-Pen could sleep with single pillow.
15.	F.D.	Congested nasal m.m., swollen turbinates.	Ac. nasopharyngitis.	Nasal tamponage plus ▲	7	Good	None	Improved breathing space and effect longer lasting than with use of Paredrine or P.S.S.
16.	C.V.P.	Nasal congestion, inflamed m.m. of nose and throat.	Ac. nasopharyngitis.	Nasal tamponage plus ▲	3	Excellent	None	Immediate decongestive action. Free of all symptoms in 72 hours.
17.	M.S.	Sore throat, impaired breathing, postnasal drip, headaches.	Chr. sinusitis with nasopharyngitis.	Nasal tamponage plus ▲	7	Excellent	None	Acute symptoms cleared up entirely in 48 hrs. Less postnasal drip than with other preparations, and decongestion more lasting.
18.	M.W.	Postnasal drip, congested m.m., swollen middle turbinates.	Chr. sinusitis, nasopharyngitis.	Nasal tamponage plus ▲	7	Good	None	Prolonged decongestive action. Decreased mucus in throat in mornings.
19.	E.E.	Stuffiness in nose, enlarged turbinates, reddened m.m.	Chr. nasopharyngitis, ethmoiditis.	Nasal tamponage plus ▲	5	Good	None	Decongestion complete 5 min. after topical appl., and use of drops gave more comfort than like preparations previously used.
20.	T.B.	Postnasal drip, nasal obstruction.	Chr. sinusitis with acute exacerbation.	Nasal tamponage plus ▲	21	Good	None	Acute symptoms quickly subsided. Discharge markedly decreased. Chronic condition greatly improved.
21.	Mrs.W.	Nasal obst., sore throat, laryngeal irritation.	Long-standing chr. sinusitis; ac. nasopharyngolaryngitis.	Nasal tamponage plus ▲	7	Very good	None	Acute condition relieved in 2 days. Entire condition almost normal in 1 week.
22.	S.S.	Nasal block with discharge.	Ac. rhinitis.	△	2	Excellent	None	Condition cured in 2 days.
23.	S.L.	Nasal block, postnasal drip, sore throat.	Ac. nasopharyngitis.	△	7	Excellent	None	Shrinkage excellent. Cessation of discharge.

No.	Patient	Symptoms	Diagnosis	Dosage*	Days of Treatment	Results	Side Reactions	Remarks
24.	G.D.	Headache, nasal stoppage and discharge.	Ac. rhinitis and ethmoiditis.	Nasal tamponage plus △	5	Excellent	None	Discharge decreased and less purulent. Relief from stoppage.
25.	L.D.S.	Stuffed up nose. Inflamed m.m.	Ac. rhinitis with acute pharyngitis.	▲	3	Good	None	All symptoms disappeared after 3 applications.
26.	M.A.		Ac. nasopharyngitis with chr. ethmoiditis.	Nasal tamponage	3	Good	None	Complete shrinkage obtained. Better effect than with Paredrine alone.
27.	M.S.	Purulent discharge from nose; postnasal drip.	Ac. nasopharyngitis.	Nasal tamponage plus △	4	Good	None	Complete shrinkage; decrease in purulent discharge and postnasal drip. Better shrinkage than with Paredrine alone.
28.	V.F.	Congested nasal passages, headache.	Ac. nasopharyngitis.	Nasal tamponage plus △	1	Good	None	Cold cured. Synergistic effect of Par-Pen noted.
29.	S.I.	Stuffy head, blocked breathing.	Chr. sinusitis with nasopharyngitis. Chr. otitis media.	Nasal tamponage plus △	7	Fair	None	Symptomatic improvement. Also patient claims a difference in ear symptoms.
30.	B.G.	Stuffiness in nose, postnasal drip.	Ac. rhinitis.	Nasal tamponage plus △	3	Very good	None	Immediate relief of stuffiness in head and clearance of nasal passages for several hours after top. appl. Improvement on use of drops.
31.	B.A.R.	Blocked nose, impaired hearing.	Chr. nasopharyngitis, ethmoiditis and chr. otitis media.	Nasal tamponage plus △	10	Fair	None	Improved breathing. Better shrinkage than with Paredrine alone.
32.	T.T.	Headache, postnasal drip, stuffy nose.	Chr. sinusitis, nasopharyngitis.	Nasal tamponage plus △	7	Good	None	Rapid relief of headache; decrease in postnasal drip.
33.	N.S	Acute symptoms of head cold.	Chr. ethmoiditis exacerbated by ac. rhinitis.	Nasal tamponage plus △	7	Good	None	Improvement in breathing and comfort while acute symptoms are present. Complete shrinkage lasting longer than previous local medications.
34.	R.A.	Swollen nasal membranes and purulent discharge.	Ac. rhinitis.	Nasal tamponage	3	Good	None	Decrease in discharge and improved drainage after treatment. Cold got well in 3 days.

35.	J.W.	Postnasal drip and other chronic symptoms.	Chr. ethmoiditis, chr. sinusitis, nasopharyngitis.	Nasal tamponage	4	Good	None	Improvement in all symptoms. Complete shrinkage of mucous membranes, better than with Paredrine alone.
36.	S.Z.L.	Purulent nasal discharge. Swollen turbinates.	Ac. rhinitis.	Nasal tamponage	3	Very good	None	Complete shrinkage with improvement in character of discharge; synergism evident.
37.	L.B.G.	Congestion of nasal passages.	Chr. sinusitis, deviated septum, hay fever.	Nasal tamponage plus △	3	No improvement	Nausea	No value except for slight effect on breathing. Nauseated.
38.	F.G.	Congested nose and head. Inability to sleep.	Chr. sinusitis with marked allergy.	Nasal tamponage plus △	7+	Good	None	Better shrinkage than with other preparations. Shrinkage lasts long enough for patient to get full night's sleep.
39.	A.W.	Stuffed up nose and headache.	Chr. sinusitis with nasopharyngitis.	Nasal tamponage	2	Good	None	Complete shrinkage. Relief more lasting than other treatments for similar previous attacks.
40.	S.R.	Acute head cold with postnasal drip.	Nasopharyngitis.	Nasal tamponage plus △	3	Good	None	Complete shrinkage.
41.	H.B.	Swollen m.m. and purulent discharge.	Ac. rhinitis.	Nasal tamponage	2	Good	None	Improvement in character of discharge. Complete shrinkage lasting 3 hours.
42.	G.P.	Stuffiness in head, postnasal drip and swollen m.m.	Chr. ethmoiditis and nasopharyngitis, chr. sinusitis.	Nasal tamponage	2	Good	None	Membranes decongested, decreased stuffiness with improved drainage.
43.	K.B.Z.	Congestion of nasal passages with discharge.	Ac. rhinitis.	Nasal tamponage plus △	3	Good	None	Decrease in purulent discharge and shrinkage of m.m.
44.	G.K.	Swollen m.m., postnasal drip	Chr. ethmoiditis.	Nasal tamponage	3	Good	None	Improvement in ease of breathing, swollen m.m. decongested.
45.	M.L.	Congested upper respiratory passages, postnasal drip.	Ac. sinusitis, nasopharyngitis.	Nasal tamponage plus △	7	Good	None	Increased drainage of sinus at first, then lessened amount of postnasal drip.
46.	B.	Stuffiness in nose. Postnasal drip.	Ac. nasopharyngitis.	Nasal tamponage	5	Good	None	Patient claims quicker relief than in previous attacks.
47.	G.P.	Bronchial asthma, stuffy nose.	Bronchial asthma, edematous nasal membranes.	Nasal tamponage	1	Good	None	Complete shrinkage in 10 minutes. Relief lasted 14 hours.
48.	S.B.	Headaches, blockage in nose.	Ac. sinusitis and nasopharyngitis.	Nasal tamponage plus △	3	Good	None	Increase in drainage and better able to breathe.

No.	Patient	Symptoms	Diagnosis	Dosage*	Days of Treatment	Results Side	Reactions	Remarks
49.	L.G.	Stuffy head, postnasal drip	Chr. sinusitis.	Nasal tamponage plus △	7	Fair	None	No particular difference in results compared with previous preparations used.
50.	E.McF.	Nose and ears stuffed up past 2 weeks.	Subac. nasopharyngitis, eustachian salpingitis.	▲		Good	None	Discharge lessened. Hearing improved. Good shrinkage of m.m.
51.	Mrs.D.		Chr. ethmoiditis with acute exacerbation.	△	14	Very good	Peculiar taste	Patient states improvement lasts longer than other treatment; but states that there is a peculiar taste.
52.	G.G.		Chr. sinusitis, left side.	4 cc. each nostril by displacement	weekly treatment	Good	None	Patient is improving under Proetz displacement treatment once a week.
53.	B.S.	Headache, sore throat, nose stoppage.	Ac. nasopharyngitis, sinusitis.	△	7	Very good	None	Marked improvement. Immediate shrinkage; discharge lessened 3rd day. After 1 wk. patient appears symptom free.
54.	A.D.	Sore throat, nose stoppage, mucous discharge.	Ac. nasopharyngitis.	△	7	Very good	None	Very good shrinkage and alleviation of symptoms.
55.	T.S.		Chr. ethmoiditis.	4 cc. each nostril by displacement	weekly treatment	Good	None	Patient is improving.
56.	A.T.		Ac. nasopharyngitis, ac. sup. otitis media.	△	14	Fair	None	Improvement in nasal symptoms. Ear still discharging.
57.	Mrs. B.G.	Acute upper respiratory infection post-pneumonia.	Eustachian salpingitis and sinusitis.	▲		Very good	None	Marked improvement. Patient states effects much more lasting than other preparations she has been using.
58.	W.S.	Nose stopped up, etc.	Ac. coryza.	△	3	Very good	None	Cured. Patient was pleased with prolonged astringent action.
59.	B.S.	Headaches, stuffy nose, etc.	Ac. nasopharyngitis.	△	1	Excellent	None	Immediate cessation of headache.
60.	Mrs. C.R.E.	Nose stopped up, mucous discharge, headaches.	Ac. sinusitis on old process.	△		Good	None	Effect very lasting. Headaches improved.
61.	C.P.	Blocked nose, muco-purulent discharge, ant. and post.	Chr. purulent sinusitis.	5 drops 3 times daily in each nostril	14	Good	None	Discharge lessened. Headache and nose stoppage improved.

Table II

SUMMARY OF PAR-PEN CASE REPORTS

Diagnosis	No. of cases	Dosage: Nasal tampon	Dosage: Tampon plus drops	Dosage: Drops alone	Dosage: Days of treatment	Results: Excellent	Results: Very good	Results: Good	Results: Fair
Rhinitis									
acute	11	4	5	2	1-4	2		8	1
acute, with pharyngitis	1			1	3			1	
chronic allergic, with polyps	1	1						1	
Nasopharyngitis									
acute	12		12		2-7	4	3	5	
acute, with otitis media	1			1	14				1
acute, with sinusitis	12	3	8	1	2-7	2	2	8	
subacute, with eustachian salpingitis	1			1				1	
chronic	1			1	7			1	
chronic, with sinusitis	3		3		4-7			3	
Sinusitis									
chronic	7		5	Displacement, 2	3-7			6	1
chronic, with acute flare-up	5		4	1	3-21			5	
chronic, with nasopharyngitis, and chronic otitis media	2		2		7, 10				2
chronic, with allergy	1		1		7+			1	
chronic, with dev. septum and hay fever	1		1		3	No improvement			
acute, with eustachian salpingitis	1			1			1		
Bronchial asthma	1	1			1			1	

It will be noted that case number 37, an instance of chronic sinusitis with deviated septum and hay fever, showed no improvement under this form of treatment, and the patient complained of nausea. In case number 51, a condition of chronic ethmoiditis with acuate exacerbation, the Par-Pen gave satisfactory improvement but the patient disliked the taste of the medication.

Summary

SIXTY-ONE patients with various upper respiratory infections were treated with Par-Pen. Cases treated included rhinitis, nasopharyngitis, and various forms of sinusitis. Both acute and chronic infections were represented.

2. The medication was administered by nasal tamponage plus nose drops, or by one or the other of these methods.

3. This therapy brought about an effective decongestion, improved the character of the nasal discharge, and often shortened the duration of the infection. In 14 cases results were excellent or very good; in 41 cases results were classified as good; in 5 cases fair. One case showed no improvement.

4. An apparent synergy of shrinking action was noted with the use of the Paredrine hydrobromide and penicillin combination.

5. The topical application of penicillin offers many advantages over the usual injection methods. Among these advantages are ease and adaptability of administration, relative cheapness, and a great degree of effectiveness due to the introduction of high concentrations of the drug at the site of bacterial invasion.

6. The almost complete absence of toxicity in our group of patients indicates that there is a wide margin of safety in the use of Par-Pen.

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—Concluded on page 240

TREATMENT OF THROMBOPHLEBITIS

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THROMBOPHLEBITIS is a subject of general interest to surgeon, internist and general practitioner. The incidence is almost equally divided between medical and surgical cases. However, it is of peculiar interest to the surgeon, because it is the cause of pulmonary embolism and sudden death in the postoperative period in an otherwise smoothly convalescing patient. Frequently, the fatality occurs in a young, vigorous patient in excellent health.

The term thrombophlebitis implies an inflammation of the vein wall or of a venous segment, usually aseptic in type. However, this is a late phase of the condition described by Homan as "bland thrombosis," by Ochsner and DeBakey as "phlebothrombosis," and by Bauer[1] as "acute deep venous thrombosis" of the veins of the leg.

Bauer[1] has demonstrated by the use of phlebograms in a study of nearly 600 patients that the process begins with a thrombus, arising for some as yet unknown reason in a muscle vein and projecting into the lumen of one of the large venous trunks of the lower part of the leg. Here, it is the starting point of a deposition thrombus, which continues growing upward in the direction of the blood stream.

The thrombus propagates until the lumen of the affected vessel is completely filled and extends upward into the femoral vein in the majority of the cases. The thrombus lies free in the vein lumen but does not completely occlude it and is attached only at one point where it projects from the vein of origin.

At this point, one of two things happens. Either the thrombus breaks off, producing an embolus, or it becomes attached to the vascular wall along its entire length, blocking the lumen and producing a typical phlegmasia alba dolens.

Early postoperative passive and active exercises and early ambulation have reduced the incidence of fatal embolus to about 1 in 800 surgical cases.

THERE are three main objectives in the treatment of acute deep venous thrombosis:

(1) Prevention of fatal pulmonary embolism.

(2) Reduction of morbidity and time of hospitalization.

(3) Prevention of postphlebitic late sequelae, edema and ulcer.

To achieve these objectives, early diagnosis and institution of proper treatment is essential.

Early diagnosis depends on certain simple signs and symptoms. Chest pain, with or without cough or uncomfortable deep breathing, is the first sign in about 35 to 40 per cent of the cases. Chest pain and cough with expectoration of blood-tinged sputum is pathognomonic. X-ray of the chest gives confirmatory evidence.

Routine daily or bidaily examinations of the legs, especially of the feet and lower legs, should be done for the first signs are manifested here in about 60 per cent of the cases. Pain, swelling, tenderness and dilated superficial veins are the first signs. Homan's sign, if present, clinches the diagnosis. This sign is elicited by gentle but forceful dorsiflexion of the foot with the leg extended. If there is discomfort in the calf muscles or popliteal space during this manipulation, thrombosis of the deep veins is present. A slight rise in temperature, pulse and respiration on the same recording of the clinical chart is very significant of thrombosis with infarct. Allen[2] states that one or two of the three lines may show an elevation for other reasons, but if they occur synchronously,

one must assume that the thrombo-embolic syndrome has occured.

Bauer[1] recommends the routine use of phlebography before commencing treatment because many cases with minimal leg signs are shown to be free from thrombosis. However, Allen[2] and his group, who formerly used routine phlebography, have discarded the method and rely entirely on clinical signs before initiating treatment. These signs are often minimal.

Established true thrombophlebitis of the usual ilio-femoral type is best treated by lumbar sympathetic block with procaine. The danger of embolism is not great in this type because it is a late phase and the thrombus is already adherent. This procedure reduces venospasm and promotes collateral circulation. Dramatic improvement occurs rapidly and convalescence is reduced to a period of 7 to 10 days compared with an average period of about six weeks with the former conservative therapy of bed rest, posture and local heat or cold. Incidence of late sequelae is reduced.

THERE are two methods of treatment of acute deep venous thrombosis now in vogue.

(1) By the use of the anticoagulants heparin and dicoumarol.

(2) By bilateral femoral vein interruption.

Results with either method of treatment are excellent. Many fatalities are prevented and morbidity is considerably reduced with either method. With heparin therapy, Bauer[1] reports a reduction in mortality from 18 per cent to 1.4 per cent. The comparison is based on a series of 264 conservatively treated cases with 209 heparin treated. The main principles of treatment are intensive administration of heparin for a period of five days and early mobilization of the patient before discontinuance of the use of heparin. The patient is out of bed within five days compared to the usual period of forty days with old-fashioned methods. Very few incapacitating after effects are noted.

Allen[2] reports on 367 patients treated by unilateral or bilateral femoral vein interruption. He states that "There has been no fatal complication as a result of this procedure in this entire series."

Ligation of the superficial femoral vein under local enesthesia is recommended. Both sides are done even though no signs are present in one leg. Allen is experimenting with a series of prophylactic vein interruptions in elderly patients.

The morbidity is reduced from the average of forty days by conservative treatment to 9 days following vein interruption.

With proper after care, consisting principally of bandaging the legs, late sequelae are rare except where the common femoral vein is ligated.

PROPHYLACTIC treatment with heparin and dicoumarol is now practiced in some clinics but the results are not firmly established as yet. Troublesome bleeding may accompany its use.

The use of either drug is contraindicated in the presence of open hemorrhage. We have had one fatality at our hospital from pulmonary hemorrhage as a result of its use in a case of pulmonary infarct with slight bloody expectoration.

Further evaluation of late results in femoral vein ligation will be necessary before routine acceptance of the method. I believe its use, in selected cases, is indicated.

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Dr. Wermer Joins Ciba

PAUL L. Wermer, M.D., has joined Ciba Pharmaceutical Products, Inc., Summit, New Jersey, as a member of the Professional Service Department. Doctor Wermer served with the Armed Forces as a Major in the United States Public Health Service. He was stationed at Hot Springs, Ark., and Chicago, Illinois. In Chicago he was Director of the Venereal Clinics of the city.

Doctor Wermer served as Health Office of Waco-McLennan County, Texas, prior to his joining the Public Health Service.

MEDICAL THERAPY IN SUDDEN ARTERIAL OCCLUSION

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Hempstead, N. Y.

T W., a forty-three-year-old male, was admitted to Meadowbrook Hospital on April 11, 1946 with a history of developing severe pain in his chest and arms three weeks previously upon arising. He described the pain in the chest as vise-like and lasting about ten minutes. He had six recurrences of the pain the first day. He continued his work as a policeman with short, but rather frequent, attacks of pain. Four days prior to admission, he had a severe attack of similar pain which required morphine for relief. About one A.M. on the morning of admission, the patient was awakened with severe pain in his right foot and leg. On admission, the right lower limb was white and cold. The interne, on admission, had ordered elevation of the leg on pillows, heat applied to the right leg and papaverine hydrochloride, grain ½ t.i.d. When seen by me on cardiac rounds April 12, 1946, the right leg felt warm and the leg was of good color. The dorsalis pedis and posterior tibial arteries were not palpable on the right leg. Oscillometric readings, as maximum April 12th, were right ankle zero and, below the right knee, zero. The left ankle was one and one-half and, below the left knee, five. The electrocardiogram showed early changes of an anterior wall type of myocardial infarction.

It seemed apparent that we were probably dealing with a small embolism above the right knee with the blood flow handled by good collateral circulation. Oscillometric readings remained the same on April 18, 1946 and May 2, 1946 on the right leg with the maximum reading on the left ankle then two and one-half and, below the left knee, five. The head of the bed was placed on six inch blocks and the patient was given one grain of papaverine hydrochloride every two hours. He was also given acetylsalicylic acid and sodium bicarbonate, grains ten, every four hours. He was given an ounce of brandy at ten A.M. and six P.M. An interne ordered a surgical consultation and the surgical resident and interne did a lumbar sympathetic block which consisted of injecting five to six cc. of one per cent novocaine at the levels of the first, second, third and fourth lumbar vertebrae. They stated that after the block was done, the temperature of both legs was equal, although they had no thermocouple. The only complaint of the patient, when last seen on May 9, 1946, was that the big toe of the right foot felt numb.

I am presenting this case, which by no means is representative of the work done at Meadowbrook Hospital, in order to discuss treatment in arterial occlusion from a medical viewpoint. This patient fortunately had or developed a good collateral circulation with no ill effects from early therapy.

I feel that the field of peripheral vascular disease is really a virgin one with much accomplished before and during World War II, but with still a vast amount of research to be done as to proper diagnosis and treatment. Diagnosis of the condition at hand is the first consideration before institution of treatment. The admitting interne must have considered the lesion as venous, we hope, or was confused in his treatment. If an artery is blocked, the reaction is primarily ischemia with its secondary reactions. If the blockage is venous, we have the complex results of venous stasis with edema and later, frequently, a relative ischemia.

Some principles of treatment of arterial occlusion, unless it is high and massive, when the case is surgical and requires re-

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moval of the clot within four hours, are:

1. Sedation with 100 or 200 mgm. of demerol or pontopon, grain ⅓ hypodermically, for relief of pain and repeated p.r.n. Some give papaverine hydrochloride, grain ½, either hypodermically or intravenously.

2. Lumbar sympathetic block done by a competent man within eight hours after the occlusion.

3. Elevation of the head of the bed.

4. Keep the extremity cool and not warm with the best temperature around 60°F. Keeping such an extremity warm will only increase the metabolism and increase the breakdown of tissue with a deficient circulation. Such an extremity should not be refrigerated unless one intends to amputate. The cool atmosphere may be maintained by placing ice around the edge within a cradle and blowing air with an electric fan over the ice and leg.

5. One must next consider the feasibility of the use of heparin and dicoumarol, since these drugs, too, are most effective when given within the first eight hours after the occlusion. It is highly probable that the anticoagulants do not dissolve clots already formed, but do prevent propagation of the same. Since these drugs can be dangerous, it is well to have a coagulation time and prothrombin time done and reported before insituation of therapy. It is also advisable to have a control test done to make sure of the laboratory materials and technique. This is particularly true in the case of dicoumarol. One may give 200 mgm. of dicoumarol by mouth and start heparin as an intravenous drip for the first twenty-four to forty-eight hours until the action of dicoumarol becomes effective. It is best to add twenty mg. of sodium heparin to each 1,000 cc. of normal saline solution and use approximately 2,000 cc. in twenty-four hours. The clotting time should be taken four hours later and the rate of flow regulated by the clotting time, which should be taken every four hours until the dicoumarol becomes effective. The normal clotting time is five to ten minutes and an increase of the time to fifteen to twenty minutes with heparin is often quite adequate. If after twenty-four hours to forty-eight hours, the prothrombin time is increased one-half, the heparin is stopped. A normal of twenty-two seconds is given by most laboratories using the Quick method, while others use eighteen seconds as the normal. A prothrombin time of thirty-two to thirty-five seconds is usually considered an optimal level when using dicoumarol. It is best, however, for each laboratory to establish its own normal and use controls because frequently difficulty in the use of this drug is due to faulty laboratory technique. If the prothrombin time is not at the desired level after two or three hundred milligrams of dicoumarol, then 100 milligrams may be added daily and daily determinations of the prothrombin time taken while the drug is still effective. Discontinuing heparin will stop its effect within two to four hours, but the action of dicoumarol will last for seven to ten days. One must be ever alert to the possibility of hemorrhage with dicoumarol and fresh plasma and preferably fresh blood should be available when one is using it.

6. The use of medication by mouth, such as vasodilators, which are probably the least important element in the treatment, includes alcohol given as brandy, bourbon or scotch, one or two ounces twice daily. Papaverine hydrochloride may be given by mouth, as grain one every two hours, if the patient can tolerate the same. Acetylsalicylic acid, grains ten, with sodium bicarbonate, may be given every three or four hours if tolerated.

7. If one suspects any infectious process in the resulting thrombosis, sulfa drugs and penicillin are indicated.

I present this case rather hurriedly and briefly to review some of the main points in therapy from a medical angle in the treatment of sudden arterial occlusion.

REVIEW OF FIVE YEARS' CESAREAN SECTIONS AT NASSAU HOSPITAL

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DURING 1941 to 1945, inclusive, there were 6215 deliveries at Nassau Hospital; 4826 or 77.6% were private and 1389 or 22.4%, ward service. A total of 202 sections were done, an incidence of 3.25%, 181 private and 21 ward cases with an incidence of 3.7 and 1.5% respectively. Ten operators did 90% of the sections. Eleven obstetricians did 160 cases; 10 general surgeons, 42 cases. Twenty per cent were done by general surgeons.

Maternal Mortality

There were no maternal deaths in the 202 consecutive sections.

Types of Operations and Morbidity

Because of war conditions the morbidity standard used was a temperature of 100.4 or over on two consecutive days, not including day of operation. The temperature was taken twice a day, routinely, and every four hours if patient became febrile. By this standard there were 25 cases or 12.3% showing morbidity. Morbidity on ward was 2 out of 21 cases (9.5%); private, 23 of 181 (12.6%).

49 cases had labor without regard to the state of the membranes. 13 became morbid (*26.5%*).

36 cases had ruptured membranes without regard to labor. 9 became morbid (*25%*).

25 cases had labor 12 hours or over without regard to state of membranes. 7 became morbid (*28%*).

11 cases had ruptured membranes 12 hours or more without regard to labor. 4 became morbid (*36.3%*).

6 cases had *both* labor and ruptured membranes over 12 hours with 3 morbid (50%). Five of these 6 were done by the Waters extra-peritoneal section.

11 cases had *both* ruptured membranes and labor less than 12 hours. 4 became morbid (36.3%). Five of the 11 cases were done by low flap section.

Rising morbidity is therefore to be expected in cases having labor or ruptured membranes or both and the longer the condition prevails the higher the morbidity in the group.

TABLE I

Type of C.S.	Cases	Percentage	Morbid Cases	Percentage
1. Classical	154	76.2	15	9.7
2. Low Flap	38	18.8	8	21
	(29 transverse and 9 vertical incisions)			
3. Porro	3	1.5	0	0
4. Waters (Extra-Peritoneal)	7	3.5	2	28.5
	202	100	25	

Effect of Ruptured Membranes or Labor on Morbidity

140 cases or 69.1% had intact membranes and no labor at the time of operation. Eleven became morbid (*7.9%*).

Effect of Examinations on Morbidity

37 cases had one or more vaginal examinations. 6 became morbid (16%).

49 cases had one or more rectal examinations. 12 became morbid (24%).

26 cases had both one or more vaginal and rectal examinations. 7 became morbid (27%).

141 cases had neither rectal nor vaginal

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examinations and 12 became morbid (8.5%).

Vaginal or rectal examinations are usually done in non-elective cases and a rise in morbidity may be expected.

One should expect, therefore, the lowest percentage of morbidity in a group of cases having no labor, intact membranes and sectioned without either vaginal or rectal examinations, and so it was found to be with an average morbidity in these two groups of cases of 8.2%.

Causes of Morbidity

1. *Infection* 15 cases.

The exact cause of morbidity was not determined in 5 cases but they are classified under infection as the most likely cause. 3 cases were due to endometritis and 2 cases each, due to peritonitis, ileus, phlebitis and 1 due to wound infection.

2. *Pyelitis* 6 cases.
3. *Respiratory Infection* 3 cases.
4. *Transfusion reaction* 1 case.

Primary Cesarean Sections

145 or 71.7% with 20 cases morbid or 13.8%.

90 sections done on patients pregnant for the first time, 44.6% incidence, 14 of which became morbid (15.6%).

Anesthesia

185 done under ethylene-oxygen or 91%, 16 spinal or 7.9%, 1 local infiltration or 0.5%.

Fetal Mortality

A gross fetal mortality of 16 cases or 7.9%—7 still born or 3.4% and 9 neonatal or 4.4%. Of the still born 4 were abruptio cases, 1 in a ruptured uterus, 1 in pre-eclampsia, 1 in a diabetic, the last 3 being term babies. The duration of pregnancy in the 4 abruptio cases averaged 36 wks. Of the 9 neonatal deaths 6 or ⅔ of the group were premature. An analysis of the indications showed two were pre-eclampsia, 1 each were central placenta praevia, marginal placenta praevia, ruptured uterus and chronic nephritic toxemia, Rh factor, previous Cesarean section for transverse presentation, and cephalo-pelvic disproportion in a breech. There were 29 babies premature in the total of 202 cases, an incidence of 14.3⅔.

TABLE II

INDICATIONS

1. Cephalo-Pelvic Disproportion		**72 cases**	**35.6%**
2. Previous Cesarean Section		**54 "**	**26.7%**
3. Hemorrhage . .		**33 "**	**16.3%**
a. Placenta Praevia	**18**		
b. Premature Separation	**11**		
c. Ruptured Uterus	**3**	**(Previous Cesarean section cases)**	
d. Threatened Ruptured Uterus	**1**		
4. Miscellaneous Causes (Included malpresentations, pelvic tumors, cysts or fibroids and doubling of indications)		**18 cases**	**8.9%**
5. Toxemias		**14 cases**	**6.9%**
6. Plastic Repairs		**7 "**	**3.4%**
7. Cardiac		**4 "**	**1.9%**
		202 "	**100%**

Previous Sections

58 cases or 28.7% had been previously sectioned, 5 or 8.6% morbid, showing a low morbidity because the conditions which contributed to morbidity at first section were absent on secondary section.

Sterilization

38 of the total 202 cases or 18.8% were sterilized, nearly all after two or more sections.

Conclusions

1. A small series of 202 consecutive Cesarean sections without maternal mortality.

—Concluded on page 236

REPORT OF A CASE OF *ASPERGILLUS FUMAGATUS* INFECTION OF THE TRACHEOBRONCHIAL TREE

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and
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REPORT of a case of pulmonary infection by the mold, *Aspergillus fumagatus.*

This, I believe, is the first case of a pulmonary infection by the mold *Aspergillus fumagatus* to be reported from Nassau County.

Mr. J. R., aged 65, a white male of Irish descent, was admitted to Nassau County Sanatorium on May 18th, 1945. He had worked as a butler and cared for a parrot. His chief complaints were cough, expectoration, dyspnea and weakness for six months. In November, 1944 he contracted a heavy chest cold and, after two weeks, felt so ill that he entered Nassau Hospital, where he remained for three weeks. Diagnosis was acute gastro-enteritis. Upon discharge, he felt somewhat better but his symptoms again became severe and he was readmitted twenty days later. This time the diagnosis was virus pneumonia. The patient remained in the hospital for five weeks. The symptoms lessened and the patient resumed work from March 15th to May 15th, at which time another recurrence of cough, expectoration, dyspnea and weakness forced him to stop work and seek medical assistance.

His dyspnea was usually more severe at night. He has had no hemoptysis or history of a foul sputum. There is no history of a persistent cough before the onset of the present illness.

Physical examination upon admission showed harsh breath sounds over both lung fields with prolonged expiration and bronchial râles. A few medial râles were heard over the right base posteriorly. A left inguinal hernia was also noted.

Blood Count on	5/17/45	5/28/45
W. B. C.	14,650	6,600
Polys.	64%	52%
Lymphs.	12%	31%
Monos.	11%	7%
Eosins.	8%	10%

Sedimentation rate 51.

Sputum was negative for acid-fast bacilli on 5/21/45.

Urinalysis was essentially negative on 5/20/45 and 5/22/45.

A blood Wassermann test was negative on 6/24/45.

Tuberculin 1 mg. on 5/28/45 gave a positive test.

Sputum culture for fungi on 5/28/45 was negative.

From admission until August 16th symptoms remained about the same, although his dyspnea and sleeplessness were relieved somewhat by ephedrine sulfate and barbiturate medication.

Courses of sulfamerazine and penicillin therapy were apparently useless.

On August 17th the patient was still raising a copious amount of thin whitish sputum. The temperature was normal. A bronchoscopic examination was done. The larynx and proximal trachea appeared normal but the lower trachea, both main bronchi and the visible portions of the secondary bronchi were covered by a gray-white membrane. This was removed by strong suction and captured in a trap. There was almost no bleeding after removal of the membrane. However, the mucosa did appear reddened. The aspirated débris was brown in color and resembled a ground, cooked liver.

The laboratory reported it to be inflammatory exudate. The culture was almost pure *Aspergillus fumagatus.* One colony

of penicillium and a few colonies of pneumococcus No. 19 also grew.

After the bronchoscopy the patient's general condition improved slightly. Cough, expectoration, dyspnea and asthmatic attacks were still present even though he had received about seven hundred grains of sodium iodide intravenously, and potassium iodide was continued.

On November 1st the bronchoscopy was repeated. There was a marked decrease in the amount of membrane. Only white flecks were noted in the distal trachea and in the bronchi. The mucosa appeared a pinkish white and thickened, suggestive of a chronic bronchitis. Culture again showed a pure growth of *Aspergillus fumagatus* but the growth was very scant in amount.

The patient continued to improve during the winter. The temperature remained normal. The sputum decreased in amount. Late in March he was discharged from the Sanatorium.

A bronchoscopic examination performed on May 9th showed a normal tracheobronchial membrane.

At present Mr. R. is working 5 hours each day and feels perfectly well. He is, however, still expectorating some 5 ounces of mucinous fluid and is taking 60 gr. of potassium iodide daily.

MYCOTIC infections of the lungs have been recognized by clinicians for over a hundred years. The first case was reported by Hughes Bennett in 1842. Since that time many cases have been reported. Nevertheless, they are still the most interesting non-tuberculous diseases of the lungs and are usually difficult to diagnose because of their relative rarity.

Aspergillus is one of the most common molds and is widely distributed. It is a regular inhabitant of the soil, at least in the United States. It has frequently been isolated from cereals, unmilled grains, hay, animal dandruffs and the dusts about poultry pens. Certain birds, especially pigeons, are excellent carriers.

There are many strains of aspergillus but only two, *Aspergillus fumagatus* and *Aspergillus niger*, seem to be pathogenic to man. Most of the reported cases have occurred in farmers, grain handlers, pigeon fanciers, and others who in their occupations experience prolonged exposure to grain dust.

On account of its ubiquitous occurrence and the fact that pulmonary infection by aspergillus occurs concomitantly with other pulmonary diseases, many investigators believe that aspergillosis occurs only in the human whose resistance is lowered by local or constitutional diseases. Examples are secondary to bronchiectasis, pulmonary tuberculosis, carcinoma, diabetes and dysentery.

THERE are two types of infection: the superficial and the deep. The superficial type is the less serious and tends to chronicity. Its course is benign, bronchitic, asthmatoid. In the deep type there is ulceration of the mucous membranes, the interstitial tissue becomes involved and cavitation develops.

Roentgenologically there is no typical film. It is difficult to distinguish from pulmonary tuberculosis and bronchopneumonia. Involvement of the hilar areas and the bases is the most common.

The history may present an affection of either an acute or a chronic nature. There is a story of a chest cold of sudden onset, fever, cough, malaise. The symptoms persist with a low grade fever and a paroxysmal cough which produces a small amount of tenacious mucoid sputum. Physical findings are few. A few coarse râles may be heard at the hili or at the bases. There may be dyspnea, cyanosis, occasionally chills. Hemoptysis may be an early symptom.

The chronic course of primary pulmonary aspergillosis is like to that of chronic pulmonary tuberculosis. There is an acute onset which subsides but malaise, morning cough, malnutrition, and low grade fever persist. There may be recurrent attacks of pleurisy extending over a period of years. The cough becomes progressively more severe with dyspnea on exertion and is more productive of a mucopurulent to purulent secretion as the interstitial tissues break down and cavitation occurs.

—Concluded on page 230

LYMPHOSARCOMA OF THE STOMACH

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J. A. W., white male, now 58 years of age, was first seen by me on February 25, 1943. His chief complaint was a fullness in the epigastrium and cramp-like pains for the past two weeks following the intake of food. He was extremely apprehensive and had been losing weight. He had had sporadic attacks of belching of gas, nausea and heartburn for the past four years. These attacks occurred 2-3 times a year and lasted from 7-10 days, being relieved by alkaline powders and the return to his modified Sippy diet. His past history was essentiallly negative except for malaria thirty years ago. His family history had no bearing on his present illness.

Physical examination revealed a well-developed, well-nourished white male, 5'6¼" in height, weighing 147½ pounds. E. E. N. T. essentially negative; neck—no glandular enlargements; chest of normal contour—moves equally on respiration through a normal excursion, no râles nor friction rubs. Heart normal on superficial examination. B. P. 120/80. Abdomen—rounded; no visible peristalsis, no palpable tumor masses; moderate tenderness in the epigastrium; left indirect inguinal hernia; no edema nor deformity of extremities.

The G. I. series taken February 27 revealed an obstructive lesion at the pyloric end of the stomach apparently of long standing. The five hours examination showed a 99 per cent gastric residue. A differential diagnosis was between chronic callous ulcer and carcinoma.

THE patient was admitted to Nassau Hospital March 3, 1943. Laboratory findings—Rbc. of 4.7: Hb. 95%: color index of 1: Wbc. of 8600: polys old 74: band 3: small lymphs 14: eos 2: Urine—negative.

On March 4, at 6 P.M., the patient complained of feeling weak and nauseated. His pulse became rapid and thready: he broke out in a cold sweat and passed a tarry stool. The bleeding subsided without any medication other than morphine. On March 11, his Rbc. was 3.3: Hb. 68%. On March 19, 1943, under general anesthesia, a posterior gastrojejunostomy was performed. The findings at the operation were a hard irregular mass, completely obstructing the pyloric end of the stomach and firmly adhering to the pancreas. There were two palpable nodules in the dome of the right lobe of the liver and many metastatic nodes in the gastrocolic omentum. One node was removed from the gastrocolic omentum. The postoperative diagnosis was an inoperable carcinoma of the stomach with liver and regional metastasis. The pathological report on the biopsy was a chronic hyperplastic lymphadenitis with no histological evidence of malignancy. The postoperative convalescence was uneventful, and the patient was discharged from the hospital on his fifteenth day, with wound healed by primary union.

The patient was seen six weeks following the operation, at which time findings of an x-ray series indicated that "the pyloric obstruction has been overcome by a gastro-enterostomy which is functioning well and which shows no evidence of a marginal or jejunal ulcer. The mass at the pyloric end of the stomach, which was found previously and which was thought at operation to be possible carcinoma, was still present." It had definitely diminished in size. There was no evidence roentgenographically to indicate that the obstructive lesion was malignant. The patient returned to his place of business six weeks after his operation—symptom free.

HE again returned for a check-up March 18, 1944 (one year after operation)—weight 140½ pounds: B. P. 120/80. He had been working hard in a Victory garden and had not felt better in

Presented before the Clinical Session of the Associated Physicians of Long Island, held at Meadowbrook Hospital, June 11th, 1946.

years. His abdomen was soft—the wound well-healed; no tenderness nor palpable masses. His x-ray series at this time showed his lungs to be clear, the stomach of moderate size and the gastro-enterostomy functioning well. There was still the impression of an obstructive lesion in the pyloric end, but a small amount of barium trickled through the duodenum. There was no tenderness over the stoma. There was no evidence of marginal jejunal ulcer.

Fourteen months later, on June 19, 1945, the patient again returned for his check-up. This time his B. P. was 170/110: weight 143½ pounds. He complained of swelling of the lower extremities for the past month. Several enlarged glands were noticed in the right cervical region of the neck along the anterior border of the sternomastoid, and several large glands (size of pigeon eggs) in the right inguinal region. There was a large irregular mass filling the epigastrium, and the right upper abdominal quadrant. This mass seemed to be continuous with the liver. It was easily palpated and was not tender. I requested the patient to have one of the glands removed from the inguinal region for pathological examination. but he expressed the desire to postpone the excision of the gland until after his vacation. He did not return.

However, x-rays taken at this time, June 1945, revealed a normally functioning posterior gastro-enterostomy with persistent obstructive lesion at the pylorus. There were now present infiltrations in the left lung with a small amount of fluid and markedly enlarged lymph nodes of the left hilus and a huge epigastric mass.

THE patient was seen by his family physician in October, 1945, under whose care he remained until admitted to Meadowbrook Hospital March 6, 1946. When first seen in October, he had a persistent cough productive of mucopurulent sputum, dyspnea and orthopnea, marked edema of the lower extremities, bilateral pleural effusion, fluid in the abdomen, enlarged glands in the groin, large mass of glands in the right cervical region of the neck, large nodular liver and a mass in the epigastrium.

The patient had thoracic taps every 3-4 days—1000-2000 cc's of pink milky fluid being withdrawn. The fluid was examined by Dr. Curphey who reported the presence of many atypical lymphocytes. He entertained the diagnosis of lymphosarcoma but felt that leukemia must be ruled out. A blood smear, examined by Dr. Ponder at Nasseu, suggested nothing unusual in the film. The treatment at this time was a high protein diet, limitation of fluids, aminoids orally, vitamin B complex by mouth and parenterally, mercupurin injections, digitalis and frequent chest taps. The improvement was negligible.

THE possibility of improvement by x-ray therapy was considered, and the patient was admitted to Meadowbrook Hospital on March 10, 1946. Laboratory findings were: Hb 82%; Wbc. 7000 and 72 mature polys. Wbc. taken at 3-4 days intervals varied from 5600-11600; polys 72-90%.

On March 16, 1946, aspiration biopsy of cervical node reported malignant lymphoblastoma—probably lymphosarcoma.

On March 18, 1946, Dr. Treves examined the patient and made a note that "the disease seems to be too widespread to consider x-ray therapy, as I believe it would produce liver damage with radiation sickness." The patient's relatives, however, were anxious to try anything, even at the risk of making the patient sicker, and he was referred for x-ray therapy. He received 2450 R through the epigastric and right lateral cervical portals with no signs of radiation sickness. He was dicharged on April 18, 1946. Although no chest taps have been necessary since the x-ray therapy, his course has been steadily downhill, and he is now awaiting re-admission.

This case is being presented here:

First—because of the problem of diagnosis; Second—because the original operation offers food for interesting speculation; Third—because of the problem which arises when diffuse x-ray therapy is considered, as the results at best would only be palliative.

SEARCH AND RESEARCH

Wallace Marshall, M.D., Research Editor
Mobile, Alabama

This constitutes the initial offering from this department. From this vantage point, we propose to discuss the various aspects of private medical research. We hope to help our readers with their research problems, and in doing so, we trust that many other medical men will also become interested in medical research.

We venture to say that most practitioners have had a secret yen to write an article for some years on that one topic which has intrigued them for so long a time. Somehow or other, the article has remained but an idea, yet unborn. We hope that we can serve as the *accoucheur* of that brain child. Its nascence may bring fruits for thought to our other readers. We sincerely hope that we can serve our own public in whatever manner they may desire.

We may be able to locate the equipment they may need. We may be able to render counsel as to a better method of approach for their research problems. We will assist them, to the best of our ability, with the actual writing of their papers if they so choose. There are many ways in which we can help the amateur medical writer and researcher. We propose to make our facilities available to all the doctors who wish to write those proposed papers, or accomplish work on their specific research problems.

Help From Veterinarians

A big laboratory is not absolutely essential in order to accomplish the average research problem. Much animal research can be completed satisfactorily with the aid of a colleague or two in veterinary medicine in the usual pet hospital. Instead of spending quite a sum to accomplish animal research, these necessary facilities are readily available through temporary affiliation with such colleagues. We do not take full advantage of this cooperation which most veterinarians would gladly give for such scientific research. Besides, many excellent suggestions can be had from these colleagues, whose basic training is quite similar to that of doctors of medicine.

Your editor has been following the above plan for some time with his own work on tumor research, and he has had excellent cooperation from his veterinarian colleagues. These men are experts in handling animals of all types, and all the necessary facilities for such research are easily available.

If you are planning to accomplish some animal experimentation, and your wife objects to having rats around the basement, follow our suggestion and obtain the assistance of a veterinarian colleague. We are sure that he will assist you well and will make it possible for you to obtain the solution of your research problem. Don't forget that the veterinarian is also a trained scientist. Talk and work with him; it will do you much good.

The Big Versus the Little Researcher

The research which comes from the doctors in private practice is not huge in amount, yet the quality of such research cannot be denied. The private or solo researcher in the medical field has usually "two strikes on him" even before he begins his work. He does not have the complete facilities which the men have who are connected with the university medical centers and foundations. Yet the private researcher may be less befuddled in his practical approach to the solution of a medical problem. He may see the practical approach to the problem, and he may be able to offer splendid suggestions through his work, although he does not usually have adequate facilities to carry through extensive work on his research problems.

His funds may be nearly non-existent if he is forced to endow and finance his own work. He may not be able to obtain grants for his work because he is not connected with a famous institution. Believe me, this latter circumstance is a most important one when a researcher attempts

to obtain the necessary funds in order to carry on his investigations.

All in all, we see that a state of competition exists between the solo investigator and the large research centers. The private researcher usually obtains very little in the way of financial support, and if my readers have accomplished much investigative work, they well know that this can be a rather costly procedure financially and otherwise.

Of the many ways and means for medical research which have been discussed recently, no one has mentioned the plight of the private researcher. Much has been said and written in behalf of the large research centers. We do not wish to belittle the tremendous contributions which they have given to medical science. We do, however, raise the point that at least a small amount of the research money to be granted by our government should be earmarked for use by the individual investigators throughout the country. Such a plan would be a decided help to these gallant private doctors who contribute so much for such little personal gain.

Now that planned organization, in almost every daily endeavor, seems to be the rule, we are wondering whether a nation-wide organization for private researchers might not be amiss. Such an organization could and certainly would take up the fight for the small researcher. He cannot hope to fight the battle for himself without assistance. Pressure could be brought to bear in the right places, so that the voice of the individual researchers could be also heard. Perhaps something tangible could be evolved so that a central pooling place for scientific equipment could be established. Each investigator could contact the central office for the help he needed, whatever it might be in the way of finances, equipment, or other assistance. With respect to the above problem, one should remember the old adage: "United we stand; divided we fall," which certainly applies to the individual who attempts to accomplish serious medical research these days.

Think it over, and then write your opinions and suggestions to "Search and Research". We shall be glad to learn your own views. Furthermore, we stand ready to help you without any costs to you in any way possible with your individual research problems. We are interested in assisting individual medical colleagues to do serious research. We feel that such work will make the individual a stronger clinician, and it will certainly aid him in keeping up with medical progress. The individual who does medical research has had to fight his battles alone. We propose to help him by every means at our command. This we hope to accomplish through this new department in MEDICAL TIMES.

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ASPERGILLUS FUMAGATUS

—Concluded from page 226

Aspergillosis should be considered in all cases having pulmonary symptoms. The diagnosis is made by first excluding all other types of pulmonary infection, and by finding the fruiting spores of the mold in the sputum either by smear or hanging drop examination. A positive agglutination of the patient's serum, reproduction of the lesion by animal inoculation and isolation of the fungus are further aids in establishing the diagnosis. A positive skin test with a stock or an autogenous vaccine may also be helpful. A bronchoscopic examination should be made.

There is no specific therapy. Desensitization to an extract of the fungus when skin sensitivity is found, inhalation of ethyl-iodide, neoarsphenamine, bismuth and thyroid extract have all been tried with varying results. However, the favorite treatment is potassium iodide by mouth t.i.d. The amount is gradually increased to tolerance.

CONTEMPORARY PROGRESS

UROLOGY

Streptomycin in the Treatment of a Case of Persistent Urinary Infection

H. G. JACOBI (*New York State Journal of Medicine,* 46:883, April 15, 1946) reports the use of streptomycin in the treatment of a case of urinary infection persisting almost six years after a transurethral prostatectomy. The patient had persistent pyuria during this period and repeatedly developed calculi, four major operations being necessary for their removal. The infecting organism until shortly before the last operation for calculus was *Bacillus proteus;* then this organism was displaced by *Bacillus pyocyaneus.* Neither the sulfonamides nor penicillin controlled either type of infection. Streptomycin was employed in a dosage of 500,000 units for the first two doses followed by 250,000 units every three or four hours. Determination of the blood and urine concentration of streptomycin showed that the concentration was well maintained in the blood by the four-hour schedule, but there was a temporary reduction in the concentration in the urine on this schedule. The three-hour schedule was employed for most of the period of treatment. The urine cleared completely twenty-four hours after the sterptomycin therapy was begun when 2,500,000 units had been given; the total dosage was 20,000,000 units. The infection, which had been resistent to all other forms of treatment, cleared up completely, repeated cultures being sterile. There were no toxic reactions to the drug. The author suggests the possibility of using streptomycin prophylactically in cases where prostatectomy or other genitourinary surgery is indicated.

COMMENT

This is an outstanding case. The chief element of promise is the fact that huge doses at short intervals did not intoxicate: a great blessing to the patient and a piece of good luck for the doctor. The use of streptomycin as a phophylactic is to be noted.

V.C.P

The Treatment of Bacillus Proteus Infections With NU-445

S. J. SARNOFF, M. A. FREEDMAN and A. A. HYMAN (*Journal of Urology,* 55:417, April 1946) report the use of a new soluble sulfonamide derivative (Nu-445) in the treatment of 14 cases *Bacillus proteus* infection of the urinary tract Nu-445 may be given by mouth, or intravenously or intramuscularly in 10 per cent solution. The solution may also be used for local irrigation. Previous studies had shown that an effective concentration of the drug in blood and urine could be maintained by an initial dose of 3 gm. followed by 2 gm. every 8 hours. Ten of these cases were definitely benefited by the treatment with Nu-445 on this dosage schedule. In 8 cases there was a complete cure, with 3 successive negative cultures. Of the 6 cases in which 3 successive negative cultures were not obtained, 4 had suprapubic tubes in situ, and one had a continuous indwelling catheter. In the sixth patient the urine became clear and symptoms were entirely relieved. A larger series of cases must be studied before definite conclusions can be drawn as to the value of Nu-445 in *Bacillus proteus* infections. The authors suggest that results might be improved by acidification of the urine, and in cases in which crystotomy is done and the wound is infected, by local application of the Nu-445 solution to the wound. In cases of *Bacillus proteus* infection of the bladder without evidence of extension to the upper urinary tract, instillations of 20cc. of a 10 per cent solution four times daily should be tried. Bladder instillation of 40 cc. of the solution might also be used prophylactically before instrumentation, since some form of instrumentation so frequently precedes *Bacillus proteus* infection of the urinary tract.

COMMENT

Unfortunately all sulfonamide derivatives have disadvantages and at least limitations

if not dangers. The authors say nothing on that point. By just that much their otherwise valuable contribution falls short of the highest standard of merit.

V.C.P.

Orchiectomy in the Treatment of Carcinoma of the Prostate

D. W. CHASE, K. L. BURT and ELMER HESS (*American Journal of Surgery*, 71:522, April 1946) consider that in the very early case of carcinoma of the prostate, total perineal prostatectomy is indicated, but they state that they have not seen a case at their clinic in which this operation was indicated. They report 50 cases of cancer of the prostate treated in 1941 and 1942 by orchiectomy, with transurethral resection when necessary to relieve obstruction. In some cases, postoperative estrogen therapy was also given. In a followup of these patients in 1945, it was found that 4 had died of "irrelevant causes." Of the 46 living patients, only 6 reported that they felt no benefit from the operation; 20 patients, although improved, had some leg or back pain; 26 had returned to full employment. Thirty-three of the patients reported a gain in weight, and only 3 had lost weight, the remaining 10 showing no weight change. Four illustrative cases are reported in which especially good results have been obtained by orchiectomy, all of these 4 patients having been able to return to work. On the basis of these findings, the authors conclude that when cancer of the prostate is too far advanced for the radical operation orchiectomy is the treatment of choice; this may be combined with transurethral resection and/or estrogen therapy. While the authors do not claim "absolute cure" in any case, they are convinced that this procedure gives the best results.

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COMMENT

That even temporary symptomatic improvement should follow orchiectomy in cancer of the prostate is a surprise. No distinction is made as to the various types of cancer. It is unfortunate that such an omission occurred.

V.C.P.

Cystometry in the Study of Bladder Dysfunction

R. B. MULLINEX (*Journal of Urology*, 55:470, May 1946) describes a method of cystometry employed in patients with injury to the spinal cord and cauda equina in a military neurosurgical center. As this center was in an active theater of military operations with a rapid turnover of patients, treatment with tidal irrigation was not always possible and suprapubic cystotomy was done in cases in which the "intractability" of the bladder dysfunction was demonstrated. The method of cystometry employed proved to be of definite value in indicating the ability or inability of the patient to void, which could then be proved by a brief trial without catheter. In the method of cystometry generally employed, the intravesical pressure is usually determined repeatedly at regular stages or degrees of bladder filling with the bladder in the passive or resting state. When the capacity has been reached a single pressure determination has been

made during an active, maximal attempt to void. With the author's method, however, active or maximum voluntary pressure, as well as passive pressure, is determined early and repeatedly during the process of filling. In this way the cystometrogram shows both an active and a passive pressure curve. In those cases in which there was a wide difference between the active and the passive pressure curves, patients were usually able to void; while if the passive pressure approached or equalled the active pressure, this indicated inability to void. This difference, known as the voiding potential, can also be plotted as a curve, indicating the difference between active and passive pressure at each 100 cc. increase in bladder content. In 18 patients in which the cystometric studies indicated ability to void, cystostomy proved to be necessary in 4 cases (22 per cent); the other 14 required no special urologic care. Of 24 patients in whom inability to void was predicted on the basis of the cystometric studies, only one was eventually able to void, and cystostomy was necessary in the other 23 cases. Cystometry, therefore, proved of definite value in a military hospital where the nature of the lesion is readily diagnosed and usually properly treated, and the urologist is concerned primarily with the possible return of bladder function. In civilian practice, in cases of derangement of bladder function, the urologist is frequently concerned not only with the restoration of bladder function but also with the diagnosis of the basic disease. But even in these cases, the method of cystometry described may be of value as a diagnostic aid in the urologic study of neurogenic bladder, and may help in distinguishing between neurogenic bladder dysfunction and dysfunction due to obstructive changes.

COMMENT

This method of cystometry has the advantage of being a step by step comparison and has therefore much to commend it. V.C.P.

The Origin, Frequency and Significance of Microscopic Calculi in the Kidney

LEO ANDERSON and J. R. McDONALD (*Surgery, Gynecology and Obstetrics,* 82:275, March 1946) report a study of 168 kidneys, some of which were surgically removed and others grossly normal kidneys removed at autopsy. The diseased kidneys were removed surgically because of tuberculosis, hydronephrosis, pyelonephritis or stones. All of the kidneys were from persons over nine years of age. Miscroscopic calculi (plaques) were found in the first section studied in 50 per cent of the kidneys; in the others more than one section was studied, but the plaques were eventually found in all the kidneys. Study of these microscopic calculi showed that they are formed by the coalescing of "droplets" of calcareous material. These microscopic calculi were found to occur throughout the renal parenchyma. Some renal calculi are formed by the deposition of the salts of the urine on such microscopic plaques; as renal calculi are rarely chemically pure, it is probable that many different types of stone have such a microscopic calculus as a nidus. Since these studies indicate that such microscopic calculi are present in practically all individuals, some inciting factor must evidently be present to cause the salts to deposit on the nidus. It is possible that this factor comes from outside the kidney. If this is the case renal calculus must be regarded as a systemic or a dietary disease rather than "a disease of the kidney *per se.*"

COMMENT

It is not a matter of grave importance that perhaps the majority of kidneys show microscopic plaques of calcareous material. The importance begins when obstruction, stasis and infection operate to convert them into macroscopic stones. The microscopic deposits undoubtedly eliminate themselves in most cases.

PUBLIC HEALTH, INCLUDING INDUSTRIAL MEDICINE AND SOCIAL HYGIENE

Venereal Disease Control by New York City Health Department in Relation to Cooperation with the Armed Forces

THEODORE ROSENTHAL and GEORGE KECHNER (*Journal of Social Hygiene,* 32:3, Jan. 1946) state that the work of venereal disease control in large cities has undergone many changes in recent years. Formerly the chief activity of local health departments in this work was the operation of cilnics for diagnosis and treatment. When syphilis and gonorrhea were made reportable diseases and contacts were also reported, the follow-up of cases and contacts became an important part of venereal disease control. As in recent years methods for the rapid treatment of venereal diseases have developed, which result in the prompt disappearance of infectious lesions, the prompt and energetic investigation of contacts has become of increasing importance. During the war, Army and Navy installations within New York City have also reported their venereal disease cases and contacts to the City Health Department. Although the total number of reported cases of syphilis has decreased, the number of cases in the primary or secondary stage has increased, being 64 per cent greater in 1944 than in 1941; this increase was greatest in the age groups of fifteen to ninteen years and of twenty to twenty-four years. While gonorrhea has not been as completely reported as syphilis, a similar increase in incidence in these age groups is noted. In 1944 a total of 10,508 contacts of syphilis, gonorrhea, and other venereal diseases were reported to the New York City Health Department by the Armed Forces. Of these 3,720 reports were returned because of inadequate information; 1945 were referred to the Police Department because the place of encounter or exposure was given as a bar, grill, dance hall, hotel, or other public place with no residence address; 784 were found to be outside New York City and were referred to the health department "of jurisdiction." The remaining 4,059 cases are under investigation by the New York City Health Department. Of these, 2,464 cases had been located by February 28, 1945; 2,223 had been examined and 939 found infected; at that time 1,506 could not be located at the addresses given and the others were under investigation.

COMMENT

It is clearly revealed that the lapse of time changes the order of venereal disease control for the better in a progressive health department. The over-all picture of a decrease of total syphilis and the increase in primary and secondary syphilis corresponds with most upstate areas. Of the 2,464 alleged military contacts that were brought to examinaion, 939 were found infected. This represents a high yield.

E.G.B.

Occupational Lead Poisoning

W. C. WILENTZ (*Industrial Medicine,* 15:253, April 1946) discusses lead poisoning at a plant of the National Lead Company. The usual sources of exposure to lead in the plant are lead fumes and lead dust, the chief danger being absorption of dust through the respiratory tract. Young and middle-aged men are most seriously affected, and careful pre-employment examination must be given these younger men. Monthly blood counts must be made in all workers exposed to lead, with special attention to red cell count, hemoglobin and stippling; physical examinations should also be made monthly. When blood counts or physical signs or both indicate the possibility of lead absorption, the worker should be kept under observation; when there is evidence of actual or impending lead intoxication, the worker must be removed from exposure to lead. If the symptoms of lead intoxication are mild, ambulatory treatment is possible. If more severe symptoms develop the patient should be hospitalized for treatment. In these cases intravenous administration of calcium glu-

conate is important for the treatment of colic; this should be continued for several days after pain is relieved to prevent recurrence. Calcium gluconate wafers are also given by mouth. After recovery from the acute symptoms, the patients should be returned to some type of work as soon as possible, but further exposure to lead should not be permitted. While iron is not given during the hospital stay, it is of value during the convalescent phase; vitamin B complex tablets are also employed and adequate diet prescribed. With this method of treatment and protection from further exposure, the author has found that workers suffering from lead absorption and lead intoxication recover completely without resulting disability. Employees in a lead plant must be educated in the value of hygienic measures, such as cleanliness of hands, frequent change of working clothes, and adequate diet. They must also be impressed with the importance of reporting any illness immediately to the medical department, so that the relation of such illness to lead exposure may be determined.

COMMENT

A discussion of sources of lead poisoning, detection of the condition and treatment. Severe cases require hospitalization and calcium gluconate administered intravenously for the control of colic. With proper care and protection from further exposure, complete recovery without disability can be expected. Value of educational work among employees exposed to lead is very important.

E.G.B.

Epidemiological Studies of Infectious Hepatitis

W. P. HAVENS, JR. (*American Journal of Public Health,* 36:37, Jan. 1946), in a review of reported epidemics of infectious hepatitis, finds that in the civilian population, children five to seventeen years of age are most frequently affected and that epidemics often occur in orphan asylums and other children's institutions. The disease also occurs frequently in young adults, as shown by outbreaks in military camps and among university students. In most epidemics the incubation period is twenty days or more, averaging twenty-six to twenty-eight days. Water-borne epidemics of infectious hepatitis have been reported and it is often associated with intestinal diseases, indicating that "the intestinal-oral circuit" is one of the natural routes of transmission. There are probably other routes, including the artificial transmission by injections of infective serum or the use of improperly sterilized syringes. The causative agent of this disease has not been isolated in the sense that it has been seen, cultured or transmitted to experimental animals. Its presence has been demonstrated, however, in the blood and feces, and sometimes in the urine, of patients in the early stage of the disease. As this agent passes bacteria-tight filters, it is considered to be a virus. The strain of the virus studied by the author was obtained from the stool of a patient who contracted infectious hepatitis in Sicily. This agent has been passed through human volunteers and is regularly demonstrated in the feces and the serum of patients in the pre-icteric or early icteric stage of the diseases. Of 11 human volunteers fed feces or serum containing this agent, 8 contracted infectious hepatitis, the incubation periods varying from sixteen to thirty-four days. These findings support the conclusion that the intestinal-oral route is of importance in the natural spread of the disease. This strain of the virus can also be transmitted by subcutaneous or intracutaneous injection, the incubation period varying from twenty to thirty-one days, that is, not differing essentially from that observed with oral transmission.

COMMENT

In epidemic hepatitis, destruction is acute and not continuous and the destructive changes involve only the hepatic cells and not the framework and vessels. One authority concludes that complete restoration of hepatic parenchyma occurs in non-fatal cases of hepatitis.

E.G.B.

Human Encephalitis of the Western Equine Type in Minnesota in 1941

C. M. EKLUND (*American Journal of Hygiene,* 43:171, March 1945) reports an epidemiological study of human encephalitis occurring in Minnesota in 1941.

In this year the most severe epidemic of acute encephalitis yet experienced in North America occurred in the North Central States of the United States and adjacent provinces in Canada. During the epidemic months, 840 suspected or frank cases of acute encephalitis were reported in Minnesota, but the diagnosis was accepted in only 791 cases. For epidemiological study only those cases were accepted in which the serum neutralization test against a Western equine virus was positive (the serum neutralizing 40 m.l.d. or more of the virus). In these cases the clinical picture was uniform, with a sudden onset with headache, fever, chills, general pains and malaise followed by marked drowsiness or stupor and neck stiffness with leukocytosis and increase of spinal fluid cells. The epidemiological study of these cases showed that with one exception all cases occurred between June 21st and September 18th; 91.3 per cent of cases occurred between July 6th and August 23rd; and 55 per cent of cases occurred between July 20th and August 9th. A study of weather reports for the northwestern part of the State showed the warmest period corresponded with the peak incidence of the disease. The disease occurred most frequently in males (71.6 per cent), and in the older age groups. The disease was most prevalent in areas of a low density of population, but in areas devoted to grain farming, and having a low average number of domestic animals as compared with other rural areas. No evidence was found that domestic animals were an important factor in the spread of the human disease. The epidemiological features of the disease suggest an insect-borne, and probably a mosquito-borne, disease, but further study of the biting insects in areas of high human incidence of the disease is necessary. During the summer of 1941, poliomyelitis was also prevalent in Minnesota; different epidemiological features of the two diseases are noted. The peak incidence of poliomyelitis was later in the season, 67 per cent of cases occurring after August 23rd. Males were somewhat more frequently attacked, but the preponderance of males was not as great as in encephalitis (56 per cent as compared with 76 per cent). Poliomyelitis was most prevalent in the younger age groups (most cases in patients under twenty years of age); and the highest incidence of poliomyelitis was in the largest cities. All these differences indicate that the modes of spread of the two diseases are different.

COMMENT

The seasonal incidence in humans and horses, together with geographical distribution, tends to support evidence that mosquitoes play an important role. Prevention, at present, should be directed toward prompt recognition of the disease, isolation in mosquito-proof rooms, universal screening of homes, and adequate mosquito control measures. ***E.G.B.***

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FIVE-YEAR CESAREAN SECTIONS

—Concluded from page 224

2. A gross fetal mortality of 7.8%; 7 stillborn, 3.4%; 9 neonatal, 4.4%.

3. A total morbidity rate of 12.3% (9.5% on ward and 12.6% private rate), which is a surprisingly low morbidity for such a high incidence of classical Cesareans.

4. If sections are done after onset of labor or rupture of membranes or both, a rise in morbidity rate may be expected.

5. If sections are done after vaginal or rectal examinations or both, a rise in morbidity rate may be expected. One should appreciate, however, that the indication for Cesarean section that necessitates the examination often contributes to the morbidity as much as the examination itself.

6. Tests of labor should preferably be limited to less than 12 hours, especially in presence of ruptured membranes, or a rise of morbidity rate results following the peritoneal approach.

7. Causes of morbidity and indications for the operation follow similar series of section cases that have been reported.

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Medical BOOK NEWS

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SIR JAMES Y. SIMPSON
1811~1870

Classical Quotations

● I have tried upon myself and others the inhalation of different volatile liquids . . . I have found one infinitely more efficacious than any of the others, viz., chloroform . . . and I am enabled to speak most confidently of its superior anesthetic properties, having now tried it upon upwards of thirty individuals . . . and I have no doubt whatever, that some years hence the practice will be general.

SIR JAMES YOUNG SIMPSON

Account of a New Anesthetic Agent as a Substitute for Sulphuric Ether. Edinburgh, 1847.

Kerr's Obstetrics and Gynecology Revised

Combined Textbook of Obstetrics and Gynaecology. For Students and Medical Practitioners. Revised by J. M. Munro Kerr, M.D., and others. 4th Edition. Baltimore, The Williams & Wilkins Co., [c. 1944]. 8vo. 1,208 pages, illustrated. Cloth, $12.00.

DEVISED particularly for medical students and general practitioners, this book answers the purpose well. Even so, it is difficult to present both subjects in one volume, so some topics are treated rather sketchily. Manual dilatation of the cervix is illustrated, while extra-peritoneal cesarean section is not mentioned. Blood transfusion receives scant attention in comparison with the importance American obstetricians attach to it.

But these are but helpful criticisms. On the whole the book is excellent, as one would expect it to be from the high standing of its authors.

CHARLES A. GORDON

Use of Skin for Leather

The Chemistry of Leather Manufacture. By George D. McLaughlin & Edwin R. Theis, et al. New York, Reinhold Publishing Corporation, [c. 1945]. 8vo. 800 pages, illustrated. Cloth, $10.00.

FOR the medical reader the principal interest of this book lies in the first five chapters where the histology, chemistry and physiology of skin is discussed in detail.

There is a rather complete discussion of protein chemistry in general as a basis for the understanding of the behavior of skin and connective tissue proteins. The material is exhaustively presented from the modern point of view. There is an extensive bibliography.

As the latest publication on the subject which stimulated Jacques Loeb's original studies on *Proteins and the Theory of Colloidal Behavior,* this book is of historical as well as technical interest.

ARTHUR SHAPIRO

Growing Old?

Forget Your Age! By Peter J. Steincrohn, M.D. Garden City, N. Y., Doubleday, Doran & Co., [c. 1944, 1945]. 12mo. 238 pages. Cloth, $2.50.

HERE is a small volume of less than 250 pages, and yet one which requires more thought and critical analysis than many a voluminous technical treatise. Consisting of nineteen chapters and addenda "From the Bottom of the Bag", there aren't many statements that could not form the basis of discussion, all, in the main, in a friendly and co-operative spirit.

For example here are the headings of some chapters: Away with Birthdays; Life Begins at any Time; It all Depends on You; You're not as Old as Your Arteries, etc. Logically there are no hard and fast

rules governing the answers to the many questions suggested by these topics. There must naturally be a diversity of opinion. One is inclined to challenge the statement "how brains as fertile as ours (doctors') could possibly have mothered so stupid, impertinent, and curious a question as "How old are you". He condemns the universal custom of doctors asking the age of patients. In fact birthdays should be tabooed. It could be argued that one should not be afraid of the years; it is the spirit in which one meets them. Instead of viewing the approach of advancing years with fear and dread, one might even greet them with open arms, proud and happy ot have the privilege of living them.

Under the heading Foolish Fancies are many comments very pertinent to common practices among too many physicians. To give to the patient the blood pressure figures at each visit, and keep them worried and apprehensive at a rise or fall of a few points, is adding to the difficulties in the management and treatment of the condition.

There are so many wise and interesting philosophical as well as practical comments on growing old, that it would more than repay every reader, lay or professional, to read and ponder. You must always remember: "that the You of seventy-eighty, etc. is not an entirely new You", and that "Old age is merely an extension of youth". Reading this book is not only a pleasure but also very comforting.

S. R. BLATTEIS

Luminescent Phenomena

Fluorochemistry. A Comprehensive Study Embracing the Theory and Application of Luminescence and Radiation in Physico-chemical Science. By Jack De Ment. Brooklyn, Chemical Publishing Co., [c. 1945]. 8vo. 796 pages, illustrated. Cloth, $14.50.

THIS book presents the theoretical and practical application of fluorescence, luminescence, and other radiations of various inorganic and organic substances. The physico-chemical aspects of luminescence, and the various ultraviolet emitting substances are described in detail. There are chapters on fluorescent Gamma, X-Radiation, infra red radiation, and their biological relationships. On the whole the book is very instructive.

EDWARD H. NIDISH

A Doctor's Autobiography

Poor Man's Doctor. By Lewis Tryon, M.D. New York, Prentice-Hall, [c. 1945]. 8vo. 233 pages. Cloth, $2.75.

HERE is another good biographical study of a doctor's life—the story of the Poor Man's Doctor who started his practice among the poor and abused Pennsylvania miners at the turn of the century. The tale is evidently being told after Dr. Tryon has been retired from active duty on the rating board of the Veterans Administration, only to be recalled for further similar service at about the age of 70.

After his discharge from the U. S. Army at the close of World War I, Dr. Tryon sees further European duty as a representative of the Red Cross in typhus infected Estonia. From then on, he never gets back permanently to his practice among the Pennsylvania Dutch—where he was born —and to the poor miners he was so willing to treat. A rather pathetic note is heard in his attempt to reestablish a private practice before he takes to the sea as a ship doctor and later finds a place in the Veterans Administration.

There is much to admire in the honest efforts of Dr. Tryon to serve his fellow man, and his story may be read with interest and enjoyment by physician and layman alike. We fail to see, however, how the gratuitous inclusion of accounts of his *affaires du coeur* brings any added drama to the story.

JOSEPH RAPHAEL

Bactericides

Disinfection and Sterilization. By Ernest C. McCulloch, D.V.M. 2nd Edition. Philadelphia, Lea & Febiger, [c. 1945]. 8vo. 472 pages, illustrated. Cloth, $6.50.

A NEW edition of McCulloch's *Disinfection and Sterilization* has long been needed, and its appearance will be welcomed by all of those who need to

know how to kill bacteria.

As with the earlier edition, the field is covered very thoroughly, with abundant references to the original literature. All of the physical and chemical methods of sterilization are considered, and the practical details for their application are described. Included also are such subjects as water purification, sewage treatment, disinfection of air, canning, and dishwashing, as well as the evaluation of germicides and the dynamics of disinfection. The newer chemotherapeutic agents, as the sulfonamides and the antibiotics, are given due space and consideration.

This book is an indispensable reference work for the physician, the hospital, the bacteriologist, and the worker in public health.

ARNOLD H. EGGERTH

BOOKS RECEIVED

for review are promptly acknowledged in this column; we assume no other obligation in return for the courtesy of those sending us the same. In most cases, review notices will be promptly published shortly after acknowledgment of receipt has been made in this column.

The Diagnosis and Treatment of Sexual Disorders in the Male and Female. Including Sterility and Impotence. By Max Huhner, M.D. 3rd Edition. Philadelphia, F. A. Davis, [c. 1945]. 8vo. 516 pages. Cloth, $4.50.

The Care of the Aged. (Geratrics). By Malford W. Thewlis, M.D. 5th Edition. St. Louis, C. V. Mosby Co., [c. 1946]. 8vo. 500 pages, illustrated. Cloth, $8.00.

Clinical Roentgenology of the Heart. By John B. Schwedel, M.D. Volume XVIII of the "Annals of Roentgenology." New York, Paul B. Hoeber, [c. 1946]. 4to. 380 pages, illustrated. Cloth, $12.00.

The Diagnosis of Nervous Diseases. By Sir James Purves-Stewart, M.D. 9th Edition. Baltimore, Williams & Wilkins Co., [c. 1945]. 8vo. 880 pages, illustrated. Cloth, $10.00.

Fractures of the Jaws. By Robert H. Ivy, M.D., and Lawrence Curtis, M.D. 3rd Edition. Philadelphia, Lea & Febiger, [c. 1945]. 8vo. 174 pages, illustrated. Cloth, $4.50.

Air Commando Doc. By Lt. Col. Robert Collier Page, M.C., A.U.S., as told to Lt. Alfred Aiken, D.C., A.U.S. New York, Bernard Ackerman, [c. 1945]. 8vo. 186 pages, illustrated. Cloth, $2.50.

Obstetric Management and Nursing. By Henry L. Woodward, M.D., and Bernice Gardner, R.N., with Sections on Home Deliveries, by William P. Gillespie, M.D., Diseases of the Newborn, by Harold F. Downing, M.D., and The Public Health Nurse in Obstetrics, by F. Kirby Harder, M.D. 3rd Edition. Philadelphia, F. A. Davis Co., [c. 1946]. 8vo. 828 pages, illustrated. Cloth,, $3.50.

Group Psychotherapy. Theory and Practice. By J. W. Klapman, M.D. New York, Grune & Stratton, [c. 1946]. 8vo. 344 pages, illustrated. Cloth, $4.00.

Essentials of Histology. By Margaret M. Hoskins, Ph.D., and Gerrit Bevelander, Ph.D. St. Louis, C. V. Mosby Co., [c. 1945]. 8vo. 240 pages, illustrated. Cloth, $3.50.

Gastro-Enterology. By Henry L. Bockus, M.D. Vol. 3. *The Liver, Biliary Tract and Pancreas, and Secondary Gastro-Intestinal Disorders.* With General Index in separate volume. Philadelphia, W. B. Saunders Co., [c. 1946]. 4to. 1091 pages, illustrated. Cloth. Price of set, $35.00.

Nursing in Commerce and Industry. By Bethel J. McGrath, R.N. New York, Commonwealth Fund, [c. 1946]. 8vo. 356 pages, illustrated. Cloth, $3.00.

Medicine in Industry. By Bernhard J. Stern, Ph.D. New York, Commonwealth Fund, [c. 1946]. 8vo. 209 pages. Cloth, $1.50.

Nursing and Nursing Education. By Agnes Gelinas, R.N. New York, Commonwealth Fund, [c. 1946]. 8vo. 72 pages. Cloth, $1.00.

Burma Surgeon Returns. By Gordon S. Seagrave, M.D. New York, W. W. Norton & Co., [c. 1946]. 8vo. 268 pages, illustrated. Cloth, $3.00.

A Surgeon Looks at Life. By Richard A. Leonardo, M.D. New York, Froben Press, [c. 1945]. 8vo. 128 pages. Cloth, $2.00.

Modern Management in Clinical Medicine. By Frederick K. Albrecht, M.D. Baltimore, Williams & Wilkins Co., [c. 1946]. 4to. 1238 pages, illustrated. Cloth, $10.00.

Gynecologic Nursing. By Robert James Crossen, M.D., and Frances W. Hoffert, R.N. 3rd Edition. St. Louis, C. V. Mosby Co., [c. 1946]. 8vo. 256 pages, illustrated. Cloth, $2.50.

The Attendant's Guide. By Edith M. Stern. In collaboration with Mary E. Corcoran, R.N. New York, Commonwealth Fund, [c. 1945]. 12mo. 104 pages. Paper, 50c.

Ambulatory Proctology. By Alfred J. Cantor, M.D. New York, Paul B. Hoeber, [c. 1946]. 8vo. 524 pages, illustrated. Cloth, $8.00.

A Comparative Study of Human Reproduction. By Clellan Stearns Ford. New Haven, Yale University Press, [c. 1945]. 8vo. 111 pages. Paper, $1.50. (Yale University Publications in Anthropology.)

Hippocratic Wisdom. For Him Who Wishes to Pursue Properly the Science of Medicine. By William F. Petersen, M. D. Springfield, Ill., Charles C. Thomas, [c. 1946]. 8vo. 263 pages, illustrated. Cloth, $5.00.

Unhappy Marriage and Divorce. A Study of Neurotic Choice of Marriage Partners. By Edmund Bergler, M.D. New York, International Universities Press, [c. 1946]. 8vo. 167 pages. Cloth, $2.50.

MINUTES OF 141st REGULAR MEETING OF ASSOCIATED PHYSICIANS OF LONG ISLAND

THE 141st Regular Meeting of the Associated Physicians of Long Island was held at the Meadowbrook Hospital, Hempstead, L. I., on Tuesday, June 11th, 1946.

The clinical session was presented at 10 A.M. and consisted of dry clinics and pathology and x-ray exhibits.

At 1 P.M. a delightful luncheon was served with the compliments of the hospital.

At 2 P.M. the Staff of the hospital presented the following program of scientific papers.

1. Review of Cesarean Sections at Nassau Hospital for Five Year Period.—Dr. G. B. Granger. Discussion by Drs. Wallace and Lubin.

2. Report of a Case of *Aspergillus fumagatus* Infection of the Tracheobronchial Tree.—Dr. Eugene H. Coon. Discussion by Dr. William Lang.

3. Demonstration of an Interesting Case.—Dr. R. Giliberty. Discussion by Drs. L'Episcopo and Hudson.

4. Treatment of Thrombophlebitis.—Dr. W. C. Freese. Discussion by Dr. Winning.

5. Treatment of Flaccid Flat Foot.—Dr. C. Basile. Discussion by Drs. Nevins and L'Episcopo.

The regular Business Meeting was called to order by Dr. Edwin A. Griffin at 4:30 P.M.

The minutes of the Annual Meeting and the last Board of Directors Meeting were read and accepted as read.

Membership Committee report by Dr. Ray Smith. All the names appearing on the printed list were accepted except three which were on the list but had not been passed on by the membership committee.

The secretary cast one ballot for all those who had been passed by the membership committee.

The resignation of Dr. Theodore D. Reed, formerly of Amityville, was accepted with regret.

Dr. John N. Evans of Brooklyn was unanimously elected to Honorary Membership.

Veterans Committee report by Dr. Merwarth who feels that most of the work supposed to be delegated to his committee is being competently handled by the County Medical Societies.

The meeting adjourned at 5:15 P.M. At 6:30 P.M. about seventy-five members gathered for dinner at the Wheatley Hills Golf Club.

M. V. ARMSTRONG, M.D.
Secretary

NEW VASOCONSTRICTOR-PENICILLIN

—Concluded from page 218

5. Fisher, A. Murray: The Antibacterial Properties of Crude Penicillin, Bull. Johns Hopkins Hosp. 73:343, Nov., 1943.

6. Vermilye, H. N.: Aerosol Penicillin in General Practice, J. Amer. Med. Assoc. 129:250-257, Sept. 22, 1945.

7. Hauser, I. J., and Work, W. P.: The Treatment of Sinusitis by Penicillin, Trans. Am. Acad. Ophth. and Otolaryng. pp. 326-327, July-August, 1945.

8. Fisher, A. M.: The Therapeutic Value of Penicillin Applied Locally, Based on Experience with the Crude Material in a Variety of Infections, Bull. Johns Hopkins Hosp. 76:134-153, March, 1945.

9. Proetz, A. W.: Cilia and Penicillin, Ann. Otol. Rhinol. and Laryng. 54:94, March, 1945.

10. Woodward, F. D., and Holt, T.: Local Use of Penicillin in Infections of the Ear, Nose, and Throat, J.A.M.A. 129:589-591, Oct. 27, 1945.

11. Sulman, L. D.: Paredrine in the Treatment of Sinusitis, Med. Rec. 150:27-29, July 5, 1939.

12. Silcox, L. E.: Rhinitis: A Nasographic Study. Preliminary Report, Arch. Otolaryng. 34:33-46, July, 1941.

13. Sulman, L. D.: Paredrine Hydrobromide-Sulfathiazole Therapy of Infections of the Upper Respiratory Tract, Arch. Otolaryng. 37:713-717, May, 1943.

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